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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,391	02/04/2004	Bjorn J. Gruenwald	072257-0311934	2749
909 7590 11/25/2008 PILSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102				
EXAMINER				
HE, JIALONG				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/770,391

Applicant(s)

GRUENWALD, BJORN J.

Examiner

JIALONG HE

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 10/14/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Examiner Change

1. It should be note the examiner change due to the previous examiner no longer available.

Request for Continued Examination

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/14/2008 has been entered.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 10/14/2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Arguments

4. Applicant's arguments have been fully considered but they are not persuasive for the following reasons.

Regarding claim 1, the applicant argues (**Remarks, page 7**) the combined teachings of Tolin and Unger could not accomplish at least the feature "converting the numeric representation of the corresponding content expressed in the second language into the corresponding content expressed in the second language" as recited in claim 1, because no supplemental dictionary would or could exist to convert the numbers or tokens back into words in the second language. Such a supplemental dictionary would require knowledge of the representation of the content expressed in the second language prior to the conversion itself, which is logically impossible. In the absence of a supplemental dictionary, the predetermined dictionary would have to include all the words of the second language which is clearly contrary to the teachings of Unger.

In response, the examiner notes that Unger discloses that both predetermined dictionaries and supplemental dictionaries are transmitted to the receive end (**Unger, col. 15, lines 30-60, also fig. 13, #52**). When translating a word from a first language (e.g., English) into a second language (e.g., German) through an international language as an intermediate pathway (**Tolin, Abstract**), a word of the same concept in the first language, the second language and intermediate language could assign the same numerical value to represent that word (**Unger, col. 2, lines 50-55, also col. 9, col., lines 5-10, a number is assigned to a word**). For example, both "House" (an English word) and "Haus" (corresponding German word) could assign the same numerical value "103" (**Unger, col. 1, lines 50-55**). On the translation side, by searching the

predetermined dictionaries and supplemental dictionaries sent from the first language and multiple language dictionary databases, the numerical value "103" is found to represent "House" in English (**using predetermined dictionaries and supplemental dictionaries transmitted**), it is also found the same concept word of "House" in English is "Haus" in German (**Tolin, col. 4, lines 5-10, also fig. 2A , using multiple language dictionary databases**). Since words with the same concept are assigned with the same numerical value, the numerical value "103" could be converted to German word "Haus". Therefore, the combined teachings of Tolin and Unger could accomplish the above underlined feature recited in claim 1.

The applicant also argue independent claims 9 and 10 which recite a feature similar to that discussed above with regard to claim 1. For the similar rationale, claims 9 and 10 are unpatentable over Tolin in view of Unger.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim(s) 1-12 is/are rejected under 35 USC 101 as not falling within one of the four statutory categories of invention. While the claim(s) recite a series of steps or acts to be performed, a statutory "process" under 35 USC 101 must (1) be tied to another statutory category (such as a manufacture or a machine), or (2) transform underlying

subject matter (such as an article or material) to a different state or thing. The instant claim(s) neither transform underlying subject matter nor positively recite structure associated with another statutory category, and therefore do not define a statutory process.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolin et al. (US 5,490,061) in view of Unger et al. (US 5,991,713).

With respect to independent **claim 1**, Tolin teaches a method for translating content in a first language into corresponding content expressed in a second language comprising:

- transforming the content included in the language stream expressed in the first language into intermediate content in a content space (*Figs. 1, 3, and 4; columns 5-6, file is translated from original language to artificial language*); and
- transforming said intermediate content in the content space into the corresponding content expressed in the second

language (*Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to the target language*)

but although Tolin teaches that the artificial language of the intermediate step may be numeric (*col. 3, lines 5-11*) and that numbers may be attached to “words” for informational purposes (*col. 9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57*), Tolin does not teach the steps of:

- converting the content included in the language stream expressed in the first language into a numeric representation of the content expressed in the first language; and
- converting the numeric representation of the corresponding content expressed in the second language into the corresponding content expressed in the second language.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a numerical form (*col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27*) as well as converting the numerical form to textual information suitable for display or printing (*col. 15, lines 60-66*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be

encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to **claim 2**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 1); in addition, Unger teaches the method of claim 1, wherein the converting the content included in the language stream expressed in the first language comprises converting one or more terms in the language stream into a numeric value (*Fig. 2, col. 11, lines 10-13, each word within the text from the original material is replaced with the number corresponding to that word (210)*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to **claim 3**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 2); in addition, Unger teaches the method of claim 2, further comprising forming a numeric vector from a plurality of said numeric values, each of said plurality of numeric values corresponding to one or more converted terms in the language

stream (col. 11, lines 10-13 and 19-24, words and numeric strings are converted to numbers; the tokenized data stream, which contains the compressed text information, is stored.) .

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to **claim 4**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 1); in addition, Unger teaches the method of claim 1, wherein the converting the content included in the language stream expressed in the first language into a numeric representation of the content expressed in the first language comprises forming a list vector from the language stream expressed in the first language (*col. 11, lines 10-13 and 19-24, words and numeric strings are converted to numbers; the tokenized data stream, which contains the compressed text information, is stored.*) .

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be

encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to **claim 5**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 1); in addition, Unger teaches the method of claim 1, wherein the converting the content included in the language stream expressed in the first language into a numeric representation of the content expressed in the first language comprises forming a numeric list vector from the language stream expressed in the first language (*col. 11, lines 10-13 and 19-24, words and numeric strings are converted to numbers; the tokenized data stream, which contains the compressed text information, is stored.*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to **claim 6**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 3); furthermore, Tolin teaches the method of claim 3, further comprising building at least one MMX file associated with said numeric vector (*Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-*

column 9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate language are assigned indicators or tags which provide a complete grammatical and lexical analysis of a word in the context of the sentence). While the information about the words and the relationships between the words are not explicitly in the form of an “MMX file”, it is clear that the stored information is functionally equivalent.

With respect to **claim 7**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 4); furthermore, Tolin teaches the method of claim 4, further comprising building at least one MMX file associated with said list vector (*Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-column 9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate language are assigned indicators or tags which provide a complete grammatical and lexical analysis of a word in the context of the sentence)*. While the information about the words and the relationships between the words are not explicitly in the form of an “MMX file”, it is clear that the stored information is functionally equivalent.

With respect to **claim 8**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 5); furthermore, Tolin teaches the method of claim 5, further comprising building at least one MMX file associated with said numeric list vector (*Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-column 9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate language are assigned indicators or tags which provide a complete grammatical and lexical analysis of a word in the context of the sentence)*.

While the information about the words and the relationships between the words are not explicitly in the form of an “MMX file”, it is clear that the stored information is functionally equivalent.

With respect to independent **claim 9**, Tolin teaches a method for translating an object in a first language space to the object in a second language comprising:

- transforming the numeric representation of the object in the first language to the object in a language agnostic space (*Figs. 1, 3, and 4; columns 5-6, file is translated from original language to artificial language*); and
- transforming the object in the language agnostic space to a numeric representation of the object in the second language space (*Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to the target language*)

but although Tolin teaches that the artificial language of the intermediate step may be numeric (*col. 3, lines 5-11*) and that numbers may be attached to “words” for informational purposes (*col. 9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57*), Tolin does not teach the steps of:

- converting the object in the first language space into a numeric representation of the object expressed in the first language; and

- converting the numeric representation of the object in the second language space into the object in the second language.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a numerical form (*col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27*) as well as converting the numerical form to textual information suitable for display or printing (*col. 15, lines 60-66*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to independent **claim 10**, Tolin teaches a method for managing content comprising:

- transforming the object in the first language space to the object in a language agnostic space (*Figs. 1, 3, and 4; col. 5-6, file is translated from original language to artificial language*); and
- manipulating the object in the language agnostic space (*col. 6, 11-14; the data are simplified by changing to a vocabulary of fewer words by stripping morphology*).

but although Tolin teaches that the artificial language of the intermediate step may be numeric (*col. 3, lines 5-11*) and that numbers may be attached to “words” for informational purposes (*col. 9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57*), Tolin does not teach the step of:

- converting an object in a first language space into a numeric representation of the object in the first language space.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a numerical form (*col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently (*Unger, col. 1, lines 47-54*) and in order to compress the data for ease of storage and transmission.

With respect to **claim 11**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 10); furthermore, Tolin teaches the method of claim 10, further comprising:

- transforming the manipulated object in the language agnostic space to a numeric representation of the manipulated object

in the first language space (*Fig. 2, col. 19, lines 36-49; each language has both a source module as well as a target module*).

Each target module can be used with any source module, as they are all accepted by the intermediate module. Therefore, data may be transformed back to the original language after passing through the intermediate step.

With respect to **claim 12**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 10); furthermore, Tolin teaches the method of claim 10, further comprising:

- transforming the manipulated object in the language agnostic space to a numeric representation of the manipulated object in a second language space (*Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to the target language*).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

* Yokogawa; Toshihiko (US 5225981 A) - language analyzer for morphemically and syntactically analyzing natural languages by using block analysis and composite morphemes.

* Yamauchi; Satoshi et al. (US 5845143 A) - language conversion system and text creating system using such.

* Martinez-Guerra; Juan Carlos et al. (US 6523172 B1) - parser translator system and method.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIALONG HE whose telephone number is (571) 270-5359. The examiner can normally be reached on Monday-Thursday, 7:00AM-4:30PM, ALT. Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JH/

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/Patrick N. Edouard/

Supervisory Patent Examiner, Art Unit 2626